

14.40 Tree Protection

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14.40.010 Purpose.

The purposes of this chapter are to: avoid the removal of stands of trees and significant trees in order to maintain the quality of Duvall's urban environment; encourage the protection of stands of trees and significant trees to the maximum extent possible in the design of new developments, buildings, roadways and utilities; mitigate the environmental and aesthetic consequences of tree removal in land development through on- and off-site tree replacement to achieve a goal of no net reduction in the number of significant trees throughout the City of Duvall; provide measures to protect trees that may be impacted during construction; maintain and protect the public health, safety and general welfare.

14.40.020 Applicability.

- A. DMC 14.40.030 applies to the removal of significant trees on developed lots, that is, a lot that is part of a subdivision or site plan approval or a lot that was built out under previous regulations.
- B. DMC 14.40.040 – 110 apply to applications for new developments, including but not limited to: short or long subdivisions, site plans, building permits, conditional use permits, and development agreements. Removal of significant trees on redevelopable or undeveloped lots are subject to the same provisions as applications for new developments.
- C. For the purposes of this chapter, a significant tree is a tree that measures a minimum of 16 inches in diameter at breast height (4.5 feet above the ground).
- D. A root protection zone is measured 5 feet outside of the dripline of a tree.

14.40.030 Developed lots – residential or commercial.

The following regulations shall apply to developed lots:

- A. Any property owner may remove up to two significant trees from a lot each year without a permit, provided that the following criteria are met: the tree(s) is not in a native growth protection area, sensitive area, or sensitive area buffer; the tree is not shown on an approved tree plan as to be retained; the tree is not the last one or two trees on the lot. A property owner is required to submit a letter of request prior to removal. The property owner shall plant one tree for each tree removed.
- B. Hazard, dead, or dying trees can be removed after a letter of request documenting the situation is submitted to the City by a property owner and/or homeowner's association. In the event that a tree is not obviously dead, dying or a hazard, a letter from an arborist describing the condition of the tree shall be submitted with the letter of request. Hazard, dead, or dying trees do not count toward the annual removal allowance set out in DMC 14.40.030.A. Tree replacement for such trees shall be at a 1 tree to 1 tree ratio.
 - 1. A hazard tree is one that has a disease and/or defect which makes it have a high probability of failure. This can include root rot, a significantly decayed trunk, two stems pressing on each other, previous failure in the crown, or other defect as identified by a certified arborist.
- C. Any tree on private property that poses an imminent threat to life or property may be removed without first obtaining a permit/City approval. The property owner shall contact the City within 7 days of removal to provide evidence of threat for approval of exemption. The City retains the right

to dispute the emergency and require that replacement trees/vegetation be replanted as mitigation.

1. Imminent danger means that the conditions of the situation make it an immediate threat of failing. An imminent danger includes, but is not limited to, a tree leaning from a storm event, breaking roots, a new crack at branch or stem attachments, and hanging broken branches.
- D. A property owner and/or homeowner's association requesting to take out trees that are in a native growth protection area (NGPA), sensitive area, or sensitive area buffer shall only be permitted to remove such trees if an arborist determines they are dead, dying or hazard trees. The woody debris from the trees may be required to be retained in the NGPA or sensitive area after removal for habitat purposes. A minimum of one tree shall be planted in the NGPA or sensitive area for each tree removed. A larger number of smaller trees may be permitted by the Director in lieu of a 2 inch caliper deciduous or 8 foot tall evergreen tree.
- E. A property owner and/or homeowner's association requesting to remove a tree(s) shown on an approved tree plan as to be retained or the last one or two trees on the lot shall be required to replace such trees at a 2 tree to 1 tree ratio.
- F. Tree replacement may be made through an in-lieu fee in accordance with DMC 14.40.070.

14.40.040 New development sites – submittal requirements.

- A. On new development sites, a plan is required to be submitted with the land use application that sets out the following:
 1. Size, species, and location of all significant trees. Trees that are on adjacent properties that have a dripline extending on to the property under application shall also be identified;
 2. Calculation setting out number of trees, the average number of trees per acre, the number of hazard, dead, or dying trees and the required number of retained trees, both for significant trees and for overall tree retention;
 3. Trees proposed for retention.
 4. Sensitive areas, including buffer and type.
- B. The plan shall be submitted with a professional evaluation and/or a tree protection plan prepared by an arborist. Such professional evaluation and/or tree protection plan should include:
 1. Complete description of each tree's health and viability. If a tree is not viable for retention, the reason(s) must be soundly based on health, high risk of failure due to structure, defects, unavoidable isolation (wind firmness), or suitability of species and for which no reasonable alternative action is possible (pruning, cabling, etc.). Impact of necessary tree removal to remaining trees, including those in a grove or on adjacent properties, must also be discussed.
 2. Location of limits of disturbance around all trees and any special instructions for work within that protection area (hand-digging, tunneling, root pruning, maximum grade change).
 3. Discussion of timing and installation of tree protection measures that must include fencing and be in accordance DMC 14.40.080. Measures may include trenching, mulching, pruning, tree care during construction, and post-construction requirements (long-term management).
 4. Suggested location and species of trees to be used for replacement when required and including planting and maintenance specifications.
- C. The applicant shall be responsible for all costs associated with City review of such tree plans and for the costs related to arborist field visits, plan development, and plan review.
- D. The applicant's tree retention plan shall be consistent with DMC 14.40.060, Priorities for tree retention. The applicant shall identify in how their proposal meets DMC 14.40.060, including for trees on adjacent properties as described in DMC 14.40.40.A1.
- E. Significant trees shall be tagged and numbered for field verification at time of application submittal.

14.40.050 New development sites – percentage of trees required to be retained.

- A. A minimum of 35 percent of all significant trees on a site shall be retained. All significant trees on a site shall be counted towards the total number of significant trees, except if a tree is a hazard, dead, or dying, such tree shall not be counted. Calculations resulting in fractions shall be rounded up.
- B. Of the 35 percent of trees required for retention, a minimum of 3/4 of those trees can be located in sensitive areas or buffers. If there are significant trees suitable for retention outside of sensitive areas and buffers, 1/4 of the trees to be saved shall be outside of sensitive areas and buffers. If all significant trees are in a sensitive area or buffer, all of those trees shall be retained.
1. The Director may grant reductions or adjustments to other site development standards if more than 35 percent of the healthy significant trees are saved outside of sensitive areas. In a case-by-case review, the Director shall determine the balance between tree protection that exceeds the established minimum percentage and variations to site development requirements. Adjustments that may be considered are:
- a. Reductions or variations of the area or width of required open space and/or landscaping;
 - b. Variations in parking lot design and/or and access requirements;
 - c. Variations in building setback requirements;
 - d. Reduction in the width of certain easements;
 - e. Variations of grading and stormwater requirements;
 - f. Other variations which are proposed and determined to be appropriate and acceptable by the Director.
- C. There shall be no net reduction of the total number of viable significant trees on a site. The total number of viable significant trees located on a site is the number of trees subject to the no significant tree reduction policy. See example 14.40.050.B.1 to determine what trees are counted toward the no significant tree reduction policy.

14.40.050.B.1

Example: Number of trees to be retained/Number of trees counted towards no significant tree reduction policy.

82 significant trees on a site, including trees in sensitive areas and buffers, and in potential right-of-way or easements. Arborist report shows 5 dead trees and 3 hazard trees.

82 trees – 8 trees = 74 Significant Trees. 74 trees X 35% = 25.9 trees, or 26 trees to be retained.

74 trees are required to be counted in determining how many trees are provided under the no significant tree reduction policy.

Summary: After construction 26 significant trees retained, + 48 additional trees on the site = 74 total trees

2. All trees proposed for or existing on the project site shall be counted towards the no significant tree loss reduction policy number.
3. Development sites with an average tree density of more than 20 trees per acre after development shall be reviewed by the Director to determine if the no significant tree loss number should be reduced due to the high density of trees. The Director has the ability to reduce the total number of trees on a lot in such cases; however, in no case shall such number be less than the sum of the 35 percent of significant trees, the remaining trees in sensitive areas and trees required in accordance with DMC 14.38, Landscaping Standards.

14.40.060 New development sites – priorities for tree retention

- A. Tree Priority for Retention/Site Design. The site plan shall take into account significant trees and be designed in accordance with the following guidelines:
- 1. The incorporation of trees as a site amenity with a strong emphasis on tree protection. Forested sites should retain their forested look, value, and function after development, to the extent possible.
 - 2. Trees should be protected within vegetated islands and stands rather than as individual, isolated trees scattered throughout the site. The City may refuse to consider individual, isolated trees as candidates for retention.

3. Trees to be preserved must be healthy and wind-firm as identified by an arborist. In designing a development project, the applicant shall prepare the required tree plan with consideration of the following retention priorities:
 - a. Tree groves and associated vegetation that are in an area that can be set aside in a NGPA;
 - b. Trees having a significant land stability function in geologically hazardous areas;
 - c. Trees located in the site perimeter, especially when they provide a screening function;
 - d. Trees that are a part of grove that extends into adjacent property, such as in a public park, open space, sensitive area buffer or otherwise preserved group of trees on adjacent private property. If significant trees must be removed in these situations, an adequate buffer of smaller trees may be required to be retained or planted on the edge of the remaining grove to help stabilize the grove.
 - e. Specimen trees (a mature tree in exceptional health and form for its species);
 - f. Other viable trees.
4. Building footprints, parking areas, roadways, utility corridors and other structures should be designed and located with a consideration of tree protection opportunities.
5. The grading plan should be developed to accommodate existing trees and avoids alteration to grades around existing significant trees to be retained.
6. Required open space and recreational space is designed and located to protect existing stands of trees.
7. The site design and landscape plans provide suitable locations and adequate area for replacement trees as required in DMC 14.40.070.

14.40.070 Tree replacement – new developments and developed lots.

- A. New development sites. Applicants that do not propose to retain 35 percent of significant trees shall replace any portion of the required 35 percent of significant trees at a 3 trees to 1 tree ratio.
- B. All sites. Replacement trees shall be planted on the site from which significant trees are removed unless the Director agrees to off-site replacement or a fee in lieu of replacement.
- C. When on-site replacement cannot be achieved, the Director may consider the following alternatives:
 1. Off-site tree replacement with replacement costs (material plus labor) at the applicant's expense.
 - a. Allowable sites for receiving off-site replacement plantings are City-owned properties or private open space which is permanently protected and maintained, such as an NGPA, park properties, street rights-of-way, and other properties as determined appropriate by the Director.
 - b. All trees to be replaced off-site shall meet the replacement standards of this chapter.
 2. A fee in lieu of tree replacement may be allowed, subject to approval by the Director.
 - a. The amount of the fee shall cover the cost of a tree, installation (labor and equipment), maintenance for 2 years, and fund administration. Such costs shall be determined by the City.
 - b. The fee shall be paid to the City prior to final site plan or final plat approval, or the issuance of a tree removal permit or letter, whichever applies.
 3. Where appropriate, the Director may consider other measures designed to mitigate the loss of trees by restoring all or parts of the forest landscape and its associated benefits. Measures may include, but are not limited to:
 - a. Creation of wildlife snags from trees which would otherwise be removed;
 - b. Replacement of certain ornamental trees with native shrubs and groundcover;
 - c. Replacement of dying or hazardous trees with new trees more likely to survive;
 - d. Daylighting and restoration of stream corridors with native vegetation;
 - e. Protection of non-significant trees to provide for the successional stages of forest development.
- D. Tree Replacement Guidelines and Requirements.

1. When individual significant trees or significant tree stands are protected, replacement trees should be planted to enhance such trees or tree stands;
 2. Replacement trees may be planted within an existing NGPA where the Director determines that such planting enhances and complements existing vegetation and environmental functions;
 3. Replacement trees shall be planted in locations appropriate to the species' growth habit and horticultural requirements;
 4. Replacement trees shall be located to provide screening of the development from adjacent properties, where appropriate;
 5. Replacement trees shall be planted in areas that connect or are adjacent to native growth protection areas or other open spaces, where appropriate;
 6. Replacement trees shall be integrated into the required landscape plans for a development; and
 7. Replacement trees should not be planted next to or under power lines.
- E. Size, Species and Condition of Replacement Trees.
1. Minimum sizes for replacement trees shall be 2 inch caliper at breast height for deciduous trees and 8 feet in height for evergreen trees.
 2. The Director may consider smaller-sized replacement trees if the applicant can demonstrate that smaller trees are more suited to the species, site conditions, and to the purposes of this section, and are planted in sufficient quantities to meet the intent of this section.
 3. The Director may require that a portion or all of the replacement trees be native species in order to restore or enhance the site to pre-development character.
 4. The condition of replacement trees shall meet or exceed current American Nursery and Landscape Association or equivalent organization's standards for nursery stock.
- F. Installation.
1. Installation of required replacement trees shall be in accordance with best management practices for landscaping which ensure the tree's long-term health and survival.
 2. All required tree replacement and other required mitigation shall be completed prior to issuance of final site plan or plat approval, unless approved by the Director and bonded in accordance with DMC 14.38.160.

14.40.080 Tree protection – construction of new developments.

- A. To ensure long-term viability of trees and tree stands identified for protection, permit plans and construction activities shall comply with the following minimum required tree protection:
1. All minimum required tree protection measures shall be shown on the tree plan and the site grading plan.
 2. All construction activities, including staging and traffic areas, shall be prohibited within the root protection zone of a protected trees.
 3. To ensure that structures, utilities, and roadways are located an adequate distance from the dripline of a protected tree and to allow adequate room for construction activities, the construction limit line for a structure, utility, or roadway shall be located no closer than the root protection zone of a protected tree.
 4. No proposed structure, utility, or roadway shall be located in the root protection zone of a protected tree, except where such structure is a raised deck, bay window, or cantilevered or otherwise raised above the ground's surface so as not to disrupt the tree's roots.
 5. Sidewalks and utilities may be located within the dripline of a protected tree, provided that construction methods and materials used will result in minimal disruption of the tree's roots, and that additional measures for tree protection are proposed and approved which will ensure the long-term viability of the tree.
 6. The Director may allow construction limits or an alteration of grades within the root protection zone, provided that the applicant submits an evaluation by an arborist which demonstrates that the proposed construction will not reduce the long-term viability of the tree.
 7. The Director may require an evaluation by an arborist to determine if protective measures should be required beyond the root protection zone.

8. Tree protection barriers shall be installed along the outer edge and completely surround the root protection zone of significant trees to be protected prior to any land disturbance.
 9. Tree protection barriers shall be a minimum of 4 feet high, constructed of chain link, or polyethylene laminar safety fencing or similar material, subject to approval by the Director. "Tree Protection Area" signs shall be posted visibly on all sides of the fenced areas. On large or multiple-project sites, the Director may also require that signs requesting subcontractor cooperation and compliance with tree protection standards be posted at site entrances.
- B. Preventative Measures. In addition to the above minimum tree protection measures, the applicant shall support tree protection efforts by employing, as appropriate, the following preventative measures, consistent with best management practices for maintaining the health of the trees:
1. Pruning of visible deadwood on trees to be protected or relocated;
 2. Application of fertilizer to enhance the vigor of stressed trees;
 3. Use of soil amendments and soil aeration in tree protection and planting areas;
 4. Mulching over tree dripline areas; and
 5. Ensuring proper water availability during and immediately after construction.
- C. Prior to final plat or final site plan approval, an arborist hired by the applicant shall be required to inspect all trees remaining on a site and provide a written report as to the status of such trees. Any protected tree found to be irreparably damaged, severely stressed or dying shall be replaced at a 3 tree to 1 tree ratio if it is part of the required 35 percent requirement, or at a 1 tree to 1 tree ratio if in excess of the 35 percent, but counted towards the overall tree number. The enforcement standards of DMC 14.40.100 may also apply at the Director's discretion. The Director will take into account the reasons for the damaged trees in determining if the fine set out in DMC 14.40.100 applies.
- D. Alternative Methods. The Director may approve the use of alternative tree protection techniques if a protected tree will be protected to an equal or greater degree than through the techniques listed above.
- E. Designation of Protected Trees.
1. The tree plan and any application and permit plans that cover such areas shall show all trees designated for protection/retention. These areas may be shown by labeling them as "protected trees" or "native growth protection areas" or such other designation as may be approved by the Director. Protected vegetation, including protected trees, shall not be modified, harmed or removed except as provided in this chapter.
 2. The Director may require that protected trees be permanently preserved within a tract, easement or other permanent protective mechanism. When required, the location, purpose, and limitation of these protected areas shall be shown on the face of the deed, plat, site plan, or similar document and shall be recorded with the King County Department of Records and Elections. The recorded document shall include the requirement that the protected areas shall not be removed, amended or modified without the written approval of the City of Duvall.

14.40.090 Maintenance.

- A. All required replacement trees and relocated trees shown on an approved tree plan shall be maintained in healthy condition by the property owner throughout the life of the project, unless otherwise approved by the Director in a subsequent permit.
- B. Cutting and Pruning.
1. Protected trees shall not be topped.
 2. Street trees, on all public streets, shall be cut or pruned only under the supervision of, or with the approval of, the City of Duvall Public Works Department.
 3. Pruning and maintenance of protected trees shall be consistent with best management practices in the field of arboriculture and further the long-term health of the tree.

14.40.100 Enforcement.

- A. Significant trees that are shown on a plan as to be retained as part of the 35 percent requirement shall not be damaged and/or removed during, or as a result of, construction. If such trees are

damaged and/or removed, the applicant shall be responsible for paying a fine of \$1,000 per tree plus installing replacement trees and/or paying an in-lieu fee as set out in DMC 14.40.070 at a 3 trees to 1 tree ratio..

- B. Significant trees that are shown on a plan as to be retained as part of the 35 percent requirement shall be retained for the life of the project, unless such trees become hazardous, or as set out in DMC 14.40.030. If such trees are removed without a permit and/or approval of the City, the property owner shall be responsible for paying a fine of \$1,000 per tree plus installing replacement trees and/or paying an in-lieu fee as set out in DMC 14.40.070 for the equivalent diameter of the tree(s) removed.
- C. Significant trees that are saved in excess of the required 35 percent shall not be subject to DMC 14.40.100.A or B unless such trees were saved in exchange for other considerations as set out in DMC 14.40.050.B.1.

14.40.110 Exemptions

The following shall not be subject to the provisions of this Chapter:

- A. Hazard, dead, or dying trees can be removed after a letter of request documenting the situation is submitted to the City by a property owner. In the event that a tree is not obviously dead, dying or a hazard, a letter from an arborist describing the condition of the tree shall be submitted with the letter of request. Hazard, dead, or dying trees do not count toward the annual removal allowance set out in DMC 14.40.030.A. Tree replacement for such trees shall be at a 1 tree to 1 tree ratio.
- B. Emergency Tree Removal. Any tree on private property that poses an imminent threat to life or property may be removed without first obtaining a permit/City approval. The property owner shall contact the City within seven 7 days of removal to provide evidence of threat for approval of exemption. The City retains the right to dispute the emergency and require that the party obtain a permit and/or require that replacement trees/vegetation be replanted as mitigation.
- C. Utility Management. Removal of private trees by the City and/or utility provider in situations involving immediate danger to life or property, or interruption of services provided by a utility.
- D. Commercial nurseries or tree farms. Removal of trees that are being grown to be sold as Christmas or landscape trees.